Amendments to the Claims:

The following claims will replace all prior versions of the claims in this application (in the unlikely event that no claims follow herein, the previously pending claims will remain):

1. (Original) A compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n \\ A''_n$$

wherein Z is

or
$$A_{p}$$

$$B_{s}$$

$$A'_{q}$$

$$B'_{r}$$

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and

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c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 ''; - NH_2 ''; - NH_2 '''; - NH_2 ''''; - NH_2 '''; - NH_2 '''; - NH_2 '''; - NH_2 '''; - $NH_$

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

A, A' and A" each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

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or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR'", -O-, or -S-.

2. (Original) A compound represented by the following formula 1:

wherein Z is

or

$$A_p$$
 C
 R'
 B_s

or

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ''; - NR_2''' ; -OH; -OR'''; - $CONR_2''''$; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NR_2 '''; -OR'''; - $CONR_2$ '''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

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R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

A, A' and A" each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR'", -O-, or -S-.

3. (Original) A pharmaceutical composition comprising: a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & A''_n$$

wherein Z is

or A_{p} B_{s} A'_{q} B'_{r}

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ''; - NH_2 ''; - NH_2 '''; - NH_2 ''''; - NH_2 '''; - NH_2 '''; - NH_2 '''; - NH_2 ''''; - NH_2 '''; - NH_2 ''''; - NH_2 ''';

R" independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

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R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 '''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

A, A' and A" each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR''', -O-, or -S-;

in a physiologically acceptable carrier.

4. (Original) A pharmaceutical composition comprising: a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & X' \\ B''_m & A''_n \\ R'' & A''_n \\ 1 & A''_n \\ A''_n & A''_n \\$$

wherein Z is

or

$$A_{p}$$

$$C$$

$$R$$

$$R$$

$$R$$

$$R$$

or

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n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NH_2 '''; - OH_2 ; - OH_2 '''; - OH_2 '''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R' independently represents a hydrogen atom; linear or branched C₁-C₂₀ alkyl; linear or branched C₂-C₂₀ alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -NR₂'''; -OR'''; -CONR₂''''; halogen atom; optionally substituted linear or branched C₁-C₂₀ alkyl; optionally substituted linear or branched C₂-C₂₀ alkenyl;

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

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A, A' and A" each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR'", -O-, or -S-;

in a physiologically acceptable carrier.

5. (Original) A method of treating diabetes comprising:

administering to a subject suffering from a diabetic condition, a therapeutically effective amount of a compound represented by the following formula 1:

wherein Z is

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NH_2 ''''; - NH_2 '''; - NH_2 ''''; -

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

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R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

A, A' and A" each independently represent a hydrogen atom; C₁-C₂₀ acylamino; C₁-C₂₀ acylamino; C₁-C₂₀ alkoxy; C₁-C₂₀ alkoxy; C₁-C₂₀ alkoxy; C₁-C₂₀ alkylamino; C₁-C₂₀ alkylamino; C₁-C₂₀ alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR'", -O-, or -S-;

in a physiologically acceptable carrier.

6. (Original) A method of treating diabetes comprising:
administering to a subject suffering from a diabetic condition, a therapeutically effective amount of a compound represented by the following formula 1:

wherein Z is

or

$$A_p$$
 C
 R'
 B_s

or

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n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 '''; - NH_2 '''; - OH_2 '''; - OH_2 '''; - OH_2 '''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NR_2 '''; -OR'''; - $CONR_2$ '''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NR_2 '''; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

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A, A' and A" each independently represent a hydrogen atom; C₁-C₂₀ acylamino; C₁-C₂₀ acyloxy; C₁-C₂₀ alkanoyl; C₁-C₂₀ alkoxycarbonyl; C₁-C₂₀ alkoxy; C₁-C₂₀ alkylamino; C₁-C₂₀ alkylamino; C₁-C₂₀ alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR''', -O-, or -S-;

in a physiologically acceptable carrier.

7. (Original) A method of treating inflammation or inflammatory disease comprising: administering to a subject suffering from such condition, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & A''_n$$

wherein Z is

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NH_2 ''''; - NH_2

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

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R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

A, A' and A" each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR'", -O-, or -S-;

in a physiologically acceptable carrier.

8. (Original) A method of treating inflammation or inflammatory disease comprising: administering to a subject suffering from such condition, a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & X' \\ B''_m & A''_n \\ R'' & A''_n \\ 1 & A''_n \\ A''_n & A''_n \\$$

wherein Z is

or

$$A_{p}$$

$$C$$

$$R'$$

$$R'$$

or

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n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NH_2 '''; - OH_2 ; -OR'''; - ONR_2 '''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R' independently represents a hydrogen atom; linear or branched C₁-C₂₀ alkyl; linear or branched C₂-C₂₀ alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -NR₂'''; -OR'''; -CONR₂''''; halogen atom; optionally substituted linear or branched C₁-C₂₀ alkyl; optionally substituted linear or branched C₂-C₂₀ alkenyl;

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

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A, A' and A" each independently represent a hydrogen atom; C₁-C₂₀ acylamino; C₁-C₂₀ acyloxy; C₁-C₂₀ alkanoyl; C₁-C₂₀ alkoxycarbonyl; C₁-C₂₀ alkoxy; C₁-C₂₀ alkylamino; C₁-C₂₀ alkylamino; C₁-C₂₀ alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR''', -O-, or -S-;

in a physiologically acceptable carrier.

9. (Original) A method of treating immunological disease comprising: administering to a subject suffering from an immunological disease a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & A''_n$$

wherein Z is

or
$$A_{p}$$

$$B_{s}$$

$$A'_{q}$$

$$B'_{r}$$

n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R and R' each independently represent a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; - NH_2 ; - NH_2 '''; - NH_2 ''''; - NH_2 '''; - NH_2 ''''; -

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

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R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

A, A' and A" each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR'", -O-, or -S-;

in a physiologically acceptable carrier.

10. (Original) A method of treating immunological disease comprising: administering to a subject suffering from an immunological disease a therapeutically effective amount of a compound represented by the following formula 1:

$$Z = \begin{bmatrix} A''_n & X' \\ B''_m & A'' \\ 1 & A''_n \\ A''_n & A''_n \\$$

wherein Z is

or

$$A_p$$
 C
 R'
 B_s

or

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n, m, q and r independently represent integers from zero to 4 provided that $n + m \le 4$ and $q + r \le 4$; p and s independently represent integers from zero to 5 provided that $p + s \le 5$; a, b and c represent double bonds which may be present or absent; when present, the double bonds may be in the E or Z configuration and, when absent, the resulting stereocenters may have the R- or S- configuration;

R independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; - $CONR_2'''$; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R' independently represents a hydrogen atom; linear or branched C₁-C₂₀ alkyl; linear or branched C₂-C₂₀ alkenyl; -CO₂Z'; -CO₂R'''; -NH₂; -NHR'''; -NR₂'''; -OR'''; -CONR₂''''; halogen atom; optionally substituted linear or branched C₁-C₂₀ alkyl; optionally substituted linear or branched C₂-C₂₀ alkenyl;

R'' independently represents a hydrogen atom; linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; - CO_2Z' ; - CO_2R''' ; - NH_2 ; -NHR'''; - NR_2''' ; -OH; -OR'''; halogen atom; optionally substituted linear or branched C_1 - C_{20} alkyl; optionally substituted linear or branched C_2 - C_{20} alkenyl;

R''' independently represents a linear or branched C_1 - C_{20} alkyl; linear or branched C_2 - C_{20} alkenyl; or $-(CH_2)_x$ -Ar, where x represents an integer from 1 to 6 and Ar represents aryl;

R'''' independently represents a hydrogen atom; optionally substituted C_1 - C_{20} alkyl; optionally substituted C_1 - C_{20} alkoxy; optionally substituted C_2 - C_{20} alkenyl; optionally substituted C_6 - C_{10} aryl; or NR_2 ''' represents a cyclic moiety;

Z' represents a hydrogen atom or a pharmaceutically acceptable counter-ion;

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A, A' and A" each independently represent a hydrogen atom; C_1 - C_{20} acylamino; C_1 - C_{20} acyloxy; C_1 - C_{20} alkanoyl; C_1 - C_{20} alkoxycarbonyl; C_1 - C_{20} alkoxy; C_1 - C_{20} alkylamino; C_1 - C_{20} alkylamino; carboxyl; cyano; halo; or hydroxy;

B, B' and B" each independently represent; C_2 - C_{20} alkenoyl; aroyl; aralkanoyl; nitro; optionally substituted, linear or branched C_1 - C_{20} alkyl; or optionally substituted, linear or branched C_2 - C_{20} alkenyl;

or A and B jointly, A' and B' jointly, or A" and B" jointly, independently represent a methylenedioxy or ethylenedioxy group; and

X and X' independently represent >NH, >NR''', -O-, or -S-;

in a physiologically acceptable carrier.

- 11. (Currently amended) A method of inhibiting the activity of TNF-alpha, IL-1, IL-6 or COX-2 which comprises administering to a host in need of such inhibition an effective amount of a compound according to claim 1 or claim 2.
- 12. (Currently amended) The method of inhibiting the undesired action of cytokine or cyclooxygenase which comprises administering to a host in need of such inhibition an effective amount of a compound according to claim 1 or claim 2.
- 13. (Currently amended) The method of treating a disease mediated by cytokines or cyclooxygenase which comprises administering to a host in need of such treatment a compound according to claim 1 or claim 2.
- 14. (Currently amended) The method of treating insulin resistance which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.

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- 15. (Currently amended) The method of treating hyperlipidemia which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 16. (Currently amended) The method of treating coronary heart disease which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 17. (Currently amended) The method of treating multiple sclerosis which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 18. (Currently amended) The method of treating cancer which comprises administering to a host in need of such treatment an effective amount of a compound according to claim 1 or claim 2.
- 19. (Original) A compound according to claim 1 selected from the group consisting of: 2-{4-[4-(2,4-dioxothiazolidin-5-ylidenemethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid, 2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid, 2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxyl-phenyl}-3-p-tolylacrylic acid methyl
- 2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid methyl ester,
- 3-(3,5-dimethylphenyl)-2-{4-[4-(2,4-dioxothiazolidin-5-ylidenemethyl)-phenoxy]-phenyl}-acrylic acid,
- 3-(3,5-dimethylphenyl)-2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-acrylic acid,
- 3-(3,5-dimethylphenyl)-2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-acrylic acid methyl ester,
- 5-(4-{4-[2-(3,5-dimethylphenyl)-1-(morpholine-4-carbonyl)-vinyl]-phenoxy}-benzyl)-thiazolidine-2,4-dione,
- 5-(4-{4-[2-(4-methoxyphenyl)-vinyl]-phenoxy}-benzyl)-thiazolidine-2,4-dione,
- $5-(4-\{4-[2-(3,5-dimethoxyphenyl)-vinyl]-phenoxy\}-benzyl)-thiazolidine-2, 4-dione,$

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- 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione,
- 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione,
- 5-[4-(2',4'-dimethoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione, and
- 5-[4-(3',5'-dimethoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione.
- 20. (Original) A pharmaceutical composition comprising a therapeutically effective amount of a compound selected from the group consisting of:
- 2-{4-[4-(2,4-dioxothiazolidin-5-ylidenemethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid,
- 2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid,
- 2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-3-p-tolylacrylic acid methyl ester,
- 3-(3,5-dimethylphenyl)-2-{4-[4-(2,4-dioxothiazolidin-5-ylidenemethyl)-phenoxy]-phenyl}-acrylic acid,
- 3-(3,5-dimethylphenyl)-2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-acrylic acid,
- 3-(3,5-dimethylphenyl)-2-{4-[4-(2,4-dioxothiazolidin-5-ylmethyl)-phenoxy]-phenyl}-acrylic acid methyl ester,
- 5-(4-{4-[2-(3,5-dimethylphenyl)-1-(morpholine-4-carbonyl)-vinyl]-phenoxy}-benzyl)-thiazolidine-2,4-dione,
- 5-(4-{4-[2-(4-methoxyphenyl)-vinyl]-phenoxy}-benzyl)-thiazolidine-2,4-dione,
- $5-(4-\{4-[2-(3,5-dimethoxyphenyl)-vinyl]-phenoxy\}-benzyl)-thiazolidine-2, 4-dione,$
- 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione,
- 5-[4-(4'-methoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione,
- 5-[4-(2',4'-dimethoxybiphenyl-3-yloxy)-benzylidene]-thiazolidine-2,4-dione, and
- 5-[4-(3',5'-dimethoxybiphenyl-3-yloxy)-benzyl]-thiazolidine-2,4-dione,
- together with a physiologically acceptable carrier therefor.
- 21. (Currently amended) A method for treating diabetes, comprising: co-administering an effective amount of a compound of claim 1 or claim 2 and an agent selected from the group consisting of:

insulin or an insulin mimetic,

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a sulfonylurea or other insulin secretagogue,
a thiazolidinedione,
a fibrate or other PPAR-alpha agonist,
a PPAR-delta agonist,
a biguanide,
a statin or other hydroxymethylglutaryl (HMG) CoA reductase inhibitor,
an alpha-glucosidase inhibitor,
a bile acid-binding resin,
apoA1,
niacin,
probucol,
and nicotinic acid.
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22. (Currently amended) A method for treating inflammatory or immunological disease, comprising: co-administering an effective amount of a compound of claim 1 or claim 2 and an agent selected from the group consisting of:

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a nonsteroidal anti-inflammatory drug (NSAID), a cyclooxygenase-2 inhibitor, a corticosteroid or other immunosuppressive agent, a disease-modifying antirheumatic drug (DMARD), a TNF-alpha inhibitor, other cytokine inhibitor, other immune modulating agent, and a narcotic agent.
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23. (Original) The compound of claim 1 wherein Z is represented by:

24. (Original) The pharmaceutical composition of claim 3 wherein Z is represented by: